MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR QUALITY

Koontz Wagner Electric/Power House Division
4755 Armitech Drive
South Bend, Indiana 46619

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 141-15092-00545	
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: January 24, 2002

TABLE OF CONTENTS

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates an electrical substation manufacturing and coating operation.

Authorized Individual:	Frank Stec
Source Address:	4755 Armitech Drive, South Bend, Indiana 46619
Mailing Address:	3300 West Sample Street, South Bend, Indiana, 46619
SIC Code:	3448
County Location:	St. Joseph
County Status:	Maintenance attainment for VOC Attainment for all criteria pollutants
Source Status:	Minor Source, under PSD or Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

(a) One (1) 1.5 MMBtu/hr natural gas fired air rotation unit, identified as ARU-1, with emissions exhausted through Stack F1;

(b) One (1) skid/floorplate high volume low pressure (HVLP) paint booth, identified as Booth1, coating metal parts at a maximum production rate of 0.1 unit/hr, with particulates controlled by a dry filter system, and emissions exhausted through Stack EP1;

(c) One (1) building HVLP paint booth, identified as Booth 2, coating metal parts at a maximum production rate of 0.1 parts/hr, with particulates controlled by a dry filter system, and emissions exhausted through Stack EP2;

(d) Six (6) metal inert gas (MIG) welding stations, each with a maximum wire consumption rate of 1.38 lb/hr.

(e) One (1) 0.1 MMBtu/hr natural gas fired 5 ton horizontal coil furnace, identified as F2A, with emissions exhausted through stack F2A;

(f) Two (2) 0.1 MMBtu/hr natural gas fired 5 ton upflow coil furnaces, identified as F2B and F2C, respectively, with emissions exhausted through stacks F2B and F2C, respectively;

(g) One (1) 0.10 MMBtu/hr natural gas fired 2 ton upflow coil furnace, identified as F3, with emissions exhausted through stack F3;

(h) One (1) 0.40 MMBtu/hr natural gas fired water heater, identified as HW1; and

(i) One (1) 0.40 MMBtu/hr natural gas fired pressure washer, identified as HW2.

SECTION B GENERAL CONSTRUCTION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled “Minor Source Operating Permit”, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

(a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section.

  (1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.

  (2) If the Affidavit of Construction does not verify that the facilities covered in this Construction Permit were constructed as proposed in the application, then the Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section prior to beginning operation of the facilities.

(b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.

(d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees)**.**

(e) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

B.7 Local Agency Requirement

An application for an operation permit must be made ninety (90) days before start up to:

St. Joseph County Local Agency
Room 914
County-City Building
South Bend, Indiana 46601-1870

The operation permit issued by the St. Joseph County Local Agency shall contain as a minimum the conditions in the Operation Conditions section of this permit.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAQ and St. Joseph County Local Agency, upon request and shall be subject to review and approval by IDEM, OAQ and St. Joseph County Local Agency. IDEM, OAQ, and St. Joseph County Local Agency may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.2 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015,

and

St. Joseph County Local Agency
Room 914
County-City Building
South Bend, Indiana 46601-1870

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.3 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ and St. Joseph County Local Agency, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;

(c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

C.4 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, and St. Joseph County Local Agency, within thirty (30) days of the change.

(b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

(c) IDEM, OAQ and St. Joseph County Local Agency, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.5 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM and St. Joseph County Local Agency, the fact that continuance of this permit is not consistent with purposes of this article.

C.6 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

Testing Requirements

C.7 Performance Testing [326 IAC 3-6]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015,

and

St. Joseph County Local Agency
Room 914
County-City Building
South Bend, Indiana 46601-1870

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAQ and St. Joseph County Local Agency within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ or St. Joseph County Local Agency, if the source submits to IDEM, OAQ or St. Joseph County Local Agency, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

Compliance Monitoring Requirements

C.8 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.9 Monitoring Methods [326 IAC 3]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.10 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this permit;

(3) The Compliance Monitoring Requirements in Section D of this permit;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ and St. Joseph County Local Agency upon request and shall be subject to review and approval by IDEM, OAQ and St. Joseph County Local Agency. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :

(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and

(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned to operating within "normal" parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken.

C.11 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAQ shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Record Keeping and Reporting Requirements

C.12 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.13 Annual Emission Statement [326 IAC 2-6]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

(1) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);

(2) Indicate actual emissions of other regulated pollutants from the source, for purposes of Part 70 fee assessment.

(b) The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015,

and

St. Joseph County Local Agency
Room 914
County-City Building
South Bend, Indiana 46601-1870

(c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ and St. Joseph County Local Agency, on or before the date it is due.

The submittal by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

C.14 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM and St. Joseph County Local Agency may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.15 General Record Keeping Requirements [326 IAC 2-6.1-2]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, and St. Joseph County Local Agency representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or St. Joseph County Local Agency makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or St. Joseph County Local Agency within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented when operation begins.

C.16 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Semi-Annual Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015,

and

St. Joseph County Local Agency
Room 914
County-City Building
South Bend, Indiana 46601-1870

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and St. Joseph County Local Agency, on or before the date it is due.

(d) Unless otherwise specified in this permit, the semi-annual report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

(2) A malfunction as described in 326 IAC 1-6-2; or

(3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.

(4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.

(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

C.17 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Data Section, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015,

and

St. Joseph County Local Agency
Room 914
County-City Building
South Bend, Indiana 46601-1870

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ and St. Joseph County Local Agency, on or before the date it is due.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

(a) One (1) 1.5 MMBtu/hr natural gas fired air rotation unit, identified as ARU-1, with emissions exhausted through Stack F1;
(b) One (1) skid/floorplate high volume low pressure (HVLP) paint booth, identified as Booth1, coating metal parts at a maximum production rate of 0.1 unit/hr, with particulates controlled by a dry filter system, and emissions exhausted through Stack EP1;
(c) One (1) building HVLP paint booth, identified as Booth 2, coating metal parts at a maximum production rate of 0.1 parts/hr, with particulates controlled by a dry filter system, and emissions exhausted through Stack EP2;
(d) Six (6) metal inert gas (MIG) welding stations, each with a maximum wire consumption rate of 1.38 lb/hr.
(e) One (1) 0.1 MMBtu/hr natural gas fired 5 ton horizontal coil furnace, identified as F2A, with emissions exhausted through stack F2A;
(f) Two (2) 0.1 MMBtu/hr natural gas fired 5 ton upflow coil furnaces, identified as F2B and F2C, respectively, with emissions exhausted through stacks F2B and F2C, respectively;
(g) One (1) 0.10 MMBtu/hr natural gas fired 2 ton upflow coil furnace, identified as F3, with emissions exhausted through stack F3;
(h) One (1) 0.40 MMBtu/hr natural gas fired water heater, identified as HW1; and
(i) One (1) 0.40 MMBtu/hr natural gas fired pressure washer, identified as HW2.

Emission Limitations and Standards

D.1.1 Particulate Matter (PM) Limitations, Welding Stations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the combined particulate matter (PM) emissions from the welding stations shall not exceed 5.72 pounds of particulate matter per hour.

D.1.2 Particulate Matter (PM) Limitations, Paint Booths [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate Matter (PM) emissions from paint booths 1 and 2 shall not exceed the limits established utilizing the following equation:

$E = 4.10 * P^{0.67}$

where: E = rate of emission in pounds per hour,
P = process weight in tons per hour

D.1.3 Volatile Organic Compound (VOC) Content Limitations, Paint Booths [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9, the owner or operator shall limit the volatile organic compound (VOC) content of the extreme performance coatings applied to metal parts and/or products at paint booths 1 and 2, to three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator.

For the purposes of this Condition, extreme performance coatings are defined as coatings that are designed for exposure to temperatures consistently above ninety-five degrees Celsius (95° C), detergents, abrasive or scouring agents, solvents, corrosive atmospheres, outdoor weather at all times, or similar environmental conditions.

To achieve compliance with the requirements of this Condition, the owner or operator shall use a daily volume weighted average, as specified in 326 IAC 8-1-2(a)(7).

D.1.4 Surface Coating Booth Cleanup Requirements [326 IAC 8-2-9]

In addition, all solvents sprayed from the application equipment of paint booths 1 and 2 during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that minimizes evaporation.

D.1.5 Hazardous Air Pollutant (HAP) Limitations [326 IAC 2-4.1]

The single and combined as applied HAP emissions from paint booths 1 and 2 are determined to be less than 10 and 25 tons per year, respectively.

Any change or modification which may increase the source single and combined HAP emissions to greater than or equal to 10 and 25 tons per year, respectively, must be approved by the Office of Air Quality (OAQ) before such change may occur.

D.1.6 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this emissions unit and any control devices.

D.1.7 Operation of Control Equipment

The dry filter systems of paint booths 1 and 2 shall be in operation at all times when the paint booths are in operation.

Compliance Determination Requirements

D.1.8 Testing Requirements [326 IAC 2-1.1-11]

The owner or operator is not required to test any emission units under this section at this time. However, IDEM may require compliance testing when deemed necessary to determine if the emission units under this permit are in compliance. If testing is required by IDEM, compliance with the PM overspray, VOC content, and HAP limits specified in Conditions D1.2, D.1.3 and D.1.5, respectively, shall be determined in accordance with the requirements found in Section C - Performance Testing.

D.1.9 Compliance Determination, Paint Booth PM Overspray Limits

The owner or operator shall determine compliance with the limit of Condition D.1.2 by

(a) verifying:

(1) that the placement, integrity, and particle loading capacity of the filters of each dry filter system is adequate,
(2) that each dry filter system performance during normal coating booth operation is adequate, and
(3) that the paint booth emissions out of each stack are normal;

and

(b) performing all additional applicable preventive measures specified in the Preventive Maintenance Plan;

pursuant to the inspection and observation schedules established in Condition D.1.12.

D.1.10 Compliance Determination, Paint Booth VOC Content Limit:

To determine compliance with the VOC limit of Condition D.1.3, the owner or operator shall on a daily basis:

(a) determine the VOC content in pounds per gallon coating, less water, as applied, for each coating applied at surface coating booths 1 and 2 using manufacturers specifications for each applicable coating; and

(b) determine the daily volume weighted average from booths 1 and 2, in pounds per gallon coating, less water, as applied, utilizing the following equation:

$$\frac{\text{Sum [units/day * gal coat/unit * lb VOC/gal coat]}}{\text{Sum [units/day * gal coat/unit]}}$$

D.1.11 Compliance Determination, Paint Booth Hazardous Air Pollutant Emission Limits

To determine compliance with the HAP limits of Condition D.1.5, the owner or operator shall, on a monthly basis, calculate the single and combined HAP emissions from paint booths 1 and 2 in tons/month utilizing information obtained from the coating and solvent material safety data sheets (MSDS), and production information.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.12 Compliance Monitoring, Paint Booth PM Overyspray Limit

The owner or operator shall, for the paint booth controls and exhaust:

(a) perform daily inspections of the dry filter systems of Booths 1 and 2, and record the results of said inspections documenting whether or not the placement, integrity and particle loading of the filters is adequate,

(b) perform weekly observations of the overspray emissions from Stacks EP1 and EP2, and record the results of said observations, documenting whether or not the dry filters are performing adequately during normal operation of the paint booths,

(c) perform monthly inspections of the emissions from Stacks EP1 and EP2, and record the results of said inspections, documenting whether or not the emissions from the stack are normal and if there is overspray present on the rooftops and the nearby ground, and

(d) perform all additional inspections and observations prescribed by the Preventive Maintenance Plan.

Should the owner or operator observe that the integrity and particle loading of the filters is not adequate, that the dry filters are not performing adequately during normal operation of the paint booth, that there is a noticeable change in overspray emissions from the stack or surrounding evidence of abnormal overspray emissions, or that there are any parameters under the Preventive Maintenance Plan that are determined to be abnormal, the owner or operator shall take the appropriate response steps as specified in the Compliance Response Plan required in Condition C.10.

D.1.13 Compliance Monitoring, VOC Content Limit

The owner or operator shall, on a daily basis, record the VOC contents and daily volume weighted averages determined in Condition D.1.10.

D.1.14 Compliance Monitoring, Paint Booth, HAP Limit

The owner or operator shall, on a monthly basis, record the single and combined HAP emissions determined in Condition D.1.11.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.15 Record Keeping Requirements

(a) To document compliance with the VOC content limit of Condition D.1.3, the owner or operator shall maintain copies of the daily VOC contents and daily volume weighted averages required in Condition D.1.13.

(b) To document compliance with the PM overspray limit of Condition D.1.2, the owner or operator shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan, as required in Condition D.1.12.

(c) To document compliance with the HAP emission limits of Condition D.1.5, the owner or operator shall maintain copies of the single and combined HAP emissions from the coatings and solvents used in the paint booths, as required in Condition D.1.14.

The records required under paragraphs (a), (b), and (c) of this Condition shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

MINOR SOURCE OPERATING PERMIT ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:
Address:
City:
Phone #:
MSOP #:

I hereby certify that Koontz Wagner Electric/Powerhouse Division is: **9** still in operation.
9 no longer in operation.

I hereby certify that Koontz Wagner Electric/Powerhouse Division is: **9** in compliance with the requirements of MSOP 141-15092-00545.
9 not in compliance with the requirements of MSOP 141-15092-00545.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. ( )_____
LOCATION: (CITY AND COUNTY)_____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____INSP:_____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON:_____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 19____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION:__ _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 19____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER:_____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____
_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES:_____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE)_____
_____
_____

MALFUNCTION REPORTED BY:_____TITLE:_____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____

*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____

_____

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Minor Source Operating Permit (MSOP)

Source Background and Description

Source Name:	Koontz Wagner Electric/Power House Division
Source Location:	4755 Armitech Drive, South Bend, Indiana 46619
County:	St. Joseph
SIC Code:	3448
Registration No.:	141-3077-00064
Operation Permit Issuance Date:	March 17, 1994
Minor Source Operating Permit No.:	141-15092-00545
Permit Reviewer:	SDF

The Office of Air Quality (OAQ) has reviewed a Minor Source Operating Permit application from Koontz Wagner Electric/Power House Division relating to the operation of their existing surface coating and welding operation.

Request

On November 26, 2001, Koontz Wagner Electric/Power House Division, submitted an application to move their existing source from 3801 Voorde Drive, South Bend, Indiana 46628 to 4755 Armitech Drive in South Bend, Indiana 46619.

Koontz-Wagner Electric/Power House Division is an electrical substation manufacturing and coating operation consisting of:

(a) One (1) 1.5 MMBtu/hr natural gas fired air rotation unit, identified as ARU-1, with emissions exhausted through Stack F1;

(b) One (1) skid/floorplate high volume low pressure (HVLP) paint booth, identified as Booth1, coating metal parts at a maximum production rate of 0.1 unit/hr, with particulates controlled by a dry filter system, and emissions exhausted through Stack EP1;

(c) One (1) building HVLP paint booth, identified as Booth 2, coating metal parts at a maximum production rate of 0.1 parts/hr, with particulates controlled by a dry filter system, and emissions exhausted through Stack EP2;

(d) Six (6) metal inert gas (MIG) welding stations, each with a maximum wire consumption rate of 1.38 lb/hr.

(e) One (1) 0.1 MMBtu/hr natural gas fired 5 ton horizontal coil furnace, identified as F2A, with emissions exhausted through Stack F2A;

(f) Two (2) 0.1 MMBtu/hr natural gas fired 5 ton upflow coil furnaces, identified as F2B and F2C, respectively, with emissions exhausted through Stacks F2B and F2C, respectively;

(g) One (1) 0.10 MMBtu/hr natural gas fired 2 ton upflow coil furnace, identified as F3, with emissions exhausted through Stack F3;

(h) One (1) 0.40 MMBtu/hr natural gas fired water heater, identified as HW1; and

(i) One (1) 0.40 MMBtu/hr natural gas fired pressure washer, identified as HW2.

All criteria pollutant UPTE are less than 100 tons/yr, but the PM, PM10, and VOC emissions exceed 25 tons per year. In addition, no single HAP emissions exceed 10 tons/yr, and the combined HAP emissions do not exceed 25 tons/yr. Therefore, the source qualifies for a Minor Source Operating Permit, pursuant to 326 IAC 2-6.1-2.

Existing Approvals

The source was issued registration 141-3077-00064 on March 17, 1994. The source has been operating under this registration at their source location, 3801 Voorde Drive, South Bend, Indiana 46628.

Stack Summary

Stack ID	Equipment	Stack Height (ft)	Stack Diameter (ft)	Discharge Temperature (°F)	Air Flow Rate (acfm)
EP1	skid/floorplate booth	37.5	4.0	ambient	38,100
EP2	building booth	38.0	4.0	ambient	38,100
F1	1.5 MMBtu/hr furnace	32.5	1.0	150	passive
F2A	5 ton horizontal coil heater	32.0	0.5	150	passive
F2B	5 ton upflow coil heater	17.5	0.5	150	passive
F2C	5 ton upflow coil heater	17.5	0.5	150	passive
F3	2 ton upflow coil heater	17.5	0.5	150	passive

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Minor Source Operating Permit (MSOP) be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application.

Emission Calculations

UNRESTRICTED POTENTIAL TO EMIT (UPTE):

The emissions generated by the source are particulate matter (PM), PM10, volatile organic compounds (VOCs), and hazardous air pollutants (HAPs) from the two surface coating booths; PM, PM10 and HAP emissions from welding; and emissions generated due to the combustion of natural gas. The following calculations determine the UPTE.

The following table summarizes the UPTE from the proposed equipment The detailed UPTE calculations follow the summary table.

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Worst Single HAP (tons/yr)	Combined HAP (tons/yr)
Paint Booths	30.53	30.53	-	-	69.06	-	3.74	12.65
MIG Welders	0.20	0.20	-	-	-	-	-	0.02
Combustion	neg.	0.10	neg.	1.20	0.10	1.00	neg.	neg.
Total	**30.73**	**30.83**	**neg.**	**1.20**	**69.16**	**1.00**	**3.74**	**12.67**

a. Paint Booths:

The source consists of 2 surface coating booths. The parts coated in the booths are metal electrical substations. The coatings are applied in sequence, first the epoxy coating is applied, and then the basecoat, with tints added as necessary.

The first coating, the epoxy coating, takes about 4 hours to dry. Once the epoxy coating is dried, the base coat is applied.

Each coating applied is thinned and various solvents are used for clean-up. The following are the coating combinations for the booths.

1. Epoxy Coating:

Coating: 97-137
Thinner: 97-725
Clean-up Solvents: Klean Strip, 95-819, 97-687, and 97-688

2. Base Coatings:

Coatings: 97-1200 or 97-1212
Tints: 95-8000 or 95-8001
Thinners: 97-731 or 97-735
Clean-up Solvents: Klean Strip, 95-819, 97-687, and 97-688

The following calculations determine the PM, PM10, and VOC UPTE.

VOC:

The following lists the VOC emissions from all VOC emitting materials at the source. The gallons per unit and units per hour provided in the W-1 form pertain to one booth only. Therefore the emissions are doubled to represent the emissions that are generated by both surface coating booths.

VOC (tons/yr) = 2 * lb/gal * fraction VOC * gal/unit * unit/hr * 8760 hr/yr * 1/2000 ton/lb

Coating	lb/gal	fraction VOC	maximum gal/unit	maximum unit/hr	VOC (ton/yr)
Klean Strip	7.1	1.00	0.001	0.1	neg.
97-731 Thinner	6.8	1.00	0.85	0.1	5.06
97-735 Thinner	6.8	1.00	0.85	0.1	5.06
97-725 Thinner	7.3	1.00	0.85	0.1	5.42
97-137 Epoxy	10.5	0.425	10.00	0.1	39.08
97-1200 Polymide	11.3	0.445	4.00	0.1	17.60
97-1212 White B	12.7	0.516	4.00	0.1	22.96
95-8001 Acrylic	12.0	0.373	4.00	0.1	15.68
95-8000 Acrylic	8.4	0.409	4.00	0.1	12.04
95-819 Isocyanate	9.8	0.00	4.00	0.1	0.00
97-687 Vinyl	7.4	0.899	4.00	0.1	23.30
97-688 Acid	7.6	0.922	4.00	0.1	24.56

The following tables lists the worst case emissions for each coating combination.

Epoxy Coating:

Coating	lb/gal	fraction VOC	maximum gal/unit	maximum unit/hr	VOC (ton/yr)
Klean Strip	7.1	1.00	0.001	0.1	**neg.**
97-725 Thinner	7.3	1.00	0.85	0.1	**5.42**
97-137 Epoxy	10.5	0.425	10.00	0.1	**39.08**
95-819 Isocyanate	9.8	0.00	4.00	0.1	0.00
97-687 Vinyl	7.4	0.899	4.00	0.1	23.30
97-688 Acid	7.6	0.922	4.00	0.1	**24.56**
				Total	**69.06**

The individual worst case materials used to apply the epoxy coatings are listed in bold type. The combined total of the worst case scenario for the epoxy coating is determined to be 69.06 tons VOC/yr.

Base Coatings:

Coating	lb/gal	fraction VOC	maximum gal/unit	maximum unit/hr	VOC (ton/yr)
Klean Strip	7.1	1.00	0.001	0.1	**neg.**
97-731 Thinner	6.8	1.00	0.85	0.1	**5.06**
97-735 Thinner	6.8	1.00	0.85	0.1	5.06
97-1200 Polymide	11.3	0.445	4.00	0.1	17.60
97-1212 White B	12.7	0.516	4.00	0.1	**22.96**
95-8001 Acrylic	12.0	0.373	4.00	0.1	**15.68**
95-8000 Acrylic	8.4	0.409	4.00	0.1	12.04
95-819 Isocyanate	9.8	0.00	4.00	0.1	0.00
97-687 Vinyl	7.4	0.899	4.00	0.1	23.30
97-688 Acid	7.6	0.922	4.00	0.1	**24.56**
				Total	**68.26**

The individual worst case materials used to apply the base coatings are listed in bold type. The combined total of the worst case scenario for the base coatings is determined to be 68.26 tons VOC/yr.

Of the two coatings that can be applied at the booths, it is determined that the application of epoxy coating is the worst case coating combination applied at the booths. Thus, the VOC UPTE is based on epoxy coating, which has estimated VOC emissions of 69.06 tons/yr.

PM:

The following table lists the PM emissions for all materials applied in the coating booths. The transfer efficiency of the surface coating booths is estimated to be 65%

As with the VOC emissions, the PM emissions are doubled to represent the emissions that are generated by both surface coating booths.

PM (tons/yr) = 2 * lb/gal * gal/unit * unit/hr * (1 - wt% VOC) * (1 - 0.65) * 8760 hr/yr * 1/2000

Coating	lb/gal	fraction VOC	maximum gal/unit	maximum unit/hr	PM (ton/yr)
Klean Strip	7.1	1.00	0.001	0.1	0.00
97-731 Thinner	6.8	1.00	0.85	0.1	0.00
97-735 Thinner	6.8	1.00	0.85	0.1	0.00
97-725 Thinner	7.3	1.00	0.85	0.1	0.00
97-137 Epoxy	10.5	0.425	10.00	0.1	18.51
97-1200 Polymide	11.3	0.445	4.00	0.1	7.69
97-1212 White B	12.7	0.516	4.00	0.1	7.54
95-8001 Acrylic	12.0	0.373	4.00	0.1	9.23
95-8000 Acrylic	8.4	0.409	4.00	0.1	6.09
95-819 Isocyanate	9.8	0.00	4.00	0.1	12.02
97-687 Vinyl	7.4	0.899	4.00	0.1	0.92
97-688 Acid	7.6	0.922	4.00	0.1	0.73

PM10 is determined to be equal to PM in this case.

The following tables list the worst case emissions for each coating combination.

Epoxy Coating:

Coating	lb/gal	fraction VOC	maximum gal/unit	maximum unit/hr	PM(PM10) (ton/yr)
Klean Strip	7.1	1.00	0.001	0.1	**0.00**
97-725 Thinner	7.3	1.00	0.85	0.1	**0.00**
97-137 Epoxy	10.5	0.425	10.00	0.1	**18.51**
95-819 Isocyanate	**9.8**	**0.00**	**4.00**	**0.1**	**12.02**
97-687 Vinyl	7.4	0.899	4.00	0.1	0.92
97-688 Acid	7.6	0.922	4.00	0.1	0.73
				Total	**30.53**

The individual worst case materials used to apply the epoxy coatings are listed in bold type. The combined total of the worst case scenario for the epoxy coatings is determined to be 30.53 tons PM(PM10)/yr.

Base Coatings:

Coating	lb/gal	fraction VOC	maximum gal/unit	maximum unit/hr	PM(PM10) (ton/yr)
Klean Strip	7.1	1.00	0.001	0.1	**0.00**
97-731 Thinner	6.8	1.00	0.85	0.1	**0.00**
97-735 Thinner	6.8	1.00	0.85	0.1	0.00
97-1200 Polymide	11.3	0.445	4.00	0.1	**7.69**
97-1212 White B	12.7	0.516	4.00	0.1	7.54
95-8001 Acrylic	12.0	0.373	4.00	0.1	**9.23**
95-8000 Acrylic	8.4	0.409	4.00	0.1	6.09
95-819 Isocyanate	9.8	0.00	4.00	0.1	**12.02**
97-687 Vinyl	7.4	0.899	4.00	0.1	0.92
97-688 Acid	7.6	0.922	4.00	0.1	0.73
				Total	**28.94**

The individual worst case materials used to apply the base coatings are listed in bold type. The combined total of the worst case scenario for the base coatings is determined to be 28.94 tons PM(PM10)/yr.

Of the two coatings that can be applied at the booths, it is determined that the application of epoxy coating is the worst case coating combination applied at the booths. Thus, the PM(PM10) UPTE is based on epoxy coating, which has estimated PM(PM10) emissions of 30.53 tons/yr.

b. MIG Welding Stations:

The following calculations determine the PM, PM10, and HAP UPTE based on use of MIG welding, 6 stations, a maximum electrode usage of 1.38 lb/hr, emission factors from the American Welding Society (AWS), emissions before controls, and 8760 hours of operation.

Emissions tons/yr = 6 Stations * 1.38 lb Elec./hr * Ef lb poll./lb elec. * 8760 hr/yr * 1/2000 ton/lb

Pollutant	Ef (lb pollutant / lb electrode)	Emissions (tons/yr)
PM	0.0055	**0.20**
PM10	0.0055	**0.20**
Manganese (HAP)	0.0005	**0.02**

c. Natural Combustion Emissions:

The following calculations determine the combustion emissions based on natural gas combustion, a combined maximum capacity of 2.7 MMBtu/hr, AP-42 emission factors, emissions before controls, and 8760 hours of operation.

2.7 MMBtu/hr * 8760 hr/yr * 1 E6 Btu/MMBtu * 1/1000 cf/Btu * 1/1E6 MMcf/cf * Ef lb poll/MMcf * 1/2000 ton poll/lb poll = ton poll/yr

	PM 7.6 lb/MMcf	PM10 7.6 lb/MMcf	SO2 0.6 lb/MMcf	NOx 100 lb/MMcf	VOC 5.5 lb/MMcf	CO 84 lb/MMcf
ton/yr	**neg.**	**0.10**	**neg.**	**1.20**	**0.10**	**1.00**

d. HAP:

The following calculations determine the source HAP emissions based on the maximum lb/hr values listed in the "Y" forms of the application.

HAP (tons/yr) = lb HAP/hr * 8760 hr/yr * 1/2000 ton HAP/lb HAP

The table also includes the estimated MIG welding station and natural gas combustion HAP emissions previously determined.

Source	HAP	lb HAP/hr	Tons HAP/yr
Booths 1 and 2	Ethylbenzene	0.435	1.91
Booths 1 and 2	MIK	0.821	3.60
Booths 1 and 2	Toluene	0.777	3.40
Booths 1 and 2	Xylene	0.853	**3.74**
Booths 1 and 2	Cyanide Compounds	0.001	neg.
MIG Welders	Manganese	-	0.02
Combustion	Combined HAP	-	neg.
		Total	**12.67**

The worst case single and combined HAP emissions are less than their respective Part 70 applicable levels of 10 and 25 tons per year.

EMISSIONS AFTER CONTROLS:

The surface coating booth PM and PM10 emissions are controlled by dry filter systems with an overall control efficiency of 99%. The following calculations determine the surface coating emissions after controls.

PM(PM10) Emissions (tons/yr) = (1 - 0.99) * Emissions Before Controls (tons/yr)
= (1 - 0.99) * 30.52 tons PM(PM10)/yr = **0.31 tons PM(PM10)/yr**

All other emissions are uncontrolled.

The following is a summary of the emissions after controls.

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Worst Single HAP (tons/yr)	Combined HAP (tons/yr)
Paint Booths	0.31	0.31	-	-	69.06	-	3.74	12.65
MIG Welders	0.20	0.20	-	-	-	-	-	0.02
Combustion	neg.	0.10	neg.	1.20	0.10	1.00	neg.	neg.
Total	**0.51**	**0.61**	**neg.**	**1.20**	**69.16**	**1.00**	**3.74**	**12.67**

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls from the source based on the above estimated emissions calculations. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	30.73
PM-10	30.83
SO_2	neg.
VOC	69.16
CO	1.00
NO_x	1.20

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

Worst Case Single HAP (tons/yr)	Combined HAPs (tons/year)
3.74	12.67

All criteria pollutant UPTE are less than 100 tons/yr, but the PM, PM10, and VOC emissions exceed 25 tons per year. In addition, no single HAP emissions exceed 10 tons/yr, and the combined HAP emissions do not exceed 25 tons/yr. Therefore, the source qualifies for a Minor Source Operating Permit, pursuant to 326 IAC 2-6.1-2.

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
PM_{10}	attainment or unclassifiable
SO_2	attainment or unclassifiable
NO_2	attainment or unclassifiable
Ozone	maintenance attainment
CO	attainment or unclassifiable
Lead	attainment or unclassifiable

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. St. Joseph County has been designated as maintenance attainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2 and 40 CFR 52.21.

(b) St. Joseph County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

New Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Worst Single HAP (tons/yr)	Combined HAP (tons/yr)
Paint Booths	0.31	0.31	-	-	69.06	-	3.74	12.65
MIG Welders	0.20	0.20	-	-	-	-	-	0.02
Combustion	neg.	0.10	neg.	1.20	0.10	1.00	neg.	neg.
Total	**0.51**	**0.61**	**neg.**	**1.20**	**69.16**	**1.00**	**3.74**	**12.67**

PSD MSL*	250	250	250	250	250	250	-	-
Part 70 MSL*	-	100	100	100	100	100	10	25

* MSL = Major Source Levels

(a) This new source is not a major PSD stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more and it is not one of the 28 listed source categories.

(b) This new source is not a Title V major stationary source because no criteria pollutant potential to emit (PTE) exceeds the applicable level of 100 tons/yr, no single hazardous air pollutant PTE exceeds the applicable levels of 10 tons/yr, and the combined hazardous air pollutant PTE does not exceed the applicable level of 25 tons/yr.

Federal Rule Applicability

New Source Performance Standards (NSPS):

There are no New Source Performance Standards (326 IAC 12 and 40 CFR Part 60) that apply to this source.

National Emission Standards for Hazardous Air Pollutants (NESHAPs):

There are no National Emission Standards for Hazardous Air Pollutants (326 IAC 14 and 20 and 40 CFR Part 61 and 63) that apply to this source.

State Rule Applicability

Entire State Rule Applicability:

326 IAC 1-6-3 (Preventive Maintenance Plan):

This source is required to have a preventive maintenance plan for the emission units and control devices of the source.

326 IAC 2-4.1 (HAP Major Sources)

This source is not subject to the requirements of 326 IAC 2-4.1 because no single hazardous air pollutant (HAP) emissions exceed 10 tons per year, and the combined HAP emissions are less than 25 tons per year.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because the source is located in St. Joseph County and the VOC UPTE exceeds the applicable level of 10 tons/yr.

Pursuant to 326 IAC 2-6, the owner or operator shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6 by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4.

326 IAC 5-1-2 (Opacity Limitations)

Opacity shall not exceed an average of 30% in any one 6 minute averaging period. Opacity shall not exceed 60% for more than a cumulative total of fifteen minutes.

Individual State Rule Applicability

326 IAC 6-3 (Process Operations), Paint Booths:

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) emissions from the paint booths shall not exceed the limits established utilizing the following equation:

$E = 4.10 * P^{0.67}$

where: E = rate of emission in pounds per hour,
P = process weight in tons per hour

326 IAC 6-3 (Process Operations), Welding Stations:

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) emissions from the welding stations shall not exceed 5.72 pounds of particulate matter per hour.

E = 4.10 * P^0.67

where: E = rate of emission in pounds per hour,
P = process weight in tons per hour (1.64 tons/hr)

The welding operations will meet this limit.

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)

This paint booth is subject to 326 IAC 8-2-9 because the coatings applied at the booths generate daily VOC emissions greater than 15 pounds, metal parts are coated, the first two digits of the SIC code are 34, and the surface coating operation is not one of the exemptions under 326 IAC 8-2-9(b).

All coatings applied at this source are extreme performance coatings.

Pursuant to 326 IAC 8-2-9, the owner or operator shall limit the volatile organic compound (VOC) content of the extreme performance coatings applied to metal parts and/or products at the paint booths to three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator.

For the purposes of this Condition, extreme performance coatings are defined as coatings that are designed for exposure to temperatures consistently above ninety-five degrees Celsius (95° C), detergents, abrasive or scouring agents, solvents, corrosive atmospheres, outdoor weather at all times, or similar environmental conditions.

In addition, all solvents sprayed from the application equipment of the paint booths during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that minimizes evaporation.

The following calculations determine the as supplied VOC content of the coatings applied at this time (extreme performance coatings) based on the respective weight percent organics, and respective volume percent water.

lb/gal * wt% organics / (1 - vol% H2O)

Coating	Density lb/gal	Fraction Organics	Volume Percent H2O	lb VOC/gal. Less H20
97-137 Epoxy	8.96	0.310	0.00	**2.78**
97-1200 Polymide	10.61	0.331	0.00	**3.51**

The polymide as applied VOC content exceeds the 326 IAC 8-2-9 extreme performance coating VOC content limit of 3.5 lb/gal, less water. The source has proposed the use of the daily volume weighted averaging to achieve compliance with the 3.5 lb/gal limit.

The following calculations determine the volume weighted average based on the “as applied” VOC data sheets provided by Koontz.

Sum (units/day * gal coat/unit * lb VOC/gal coat) / sum (units/day * gal coat/unit)

Coat	(A) lb VOC/gal coat	(B) gal coat/unit	(C) units/day	(A) * (B) * (C)	(B) * (C)
Epoxy	2.78	10	0.1	2.78	1.00
Polymide	3.51	4	0.1	1.40	0.40
				3.18	**1.40**

Daily volume weighted average = 3.18 / 1.4 = 2.27 lb VOC/gal coating, excluding water

Since the volume weighted average (2.27 lb VOC/gal coating, excluding water) is less than the applicable level of 3.5 lb VOC/gal coating, excluding water, compliance is determined to be achieved.

Compliance Determination

Compliance determination for the source shall consist of calculating on a daily basis, the VOC content of the coatings applied in the paint booths and the daily volume weighted average, and requiring verification that the dry filter systems are adequate and requiring the source to perform all other preventive maintenance measures of the Preventive Maintenance Plan.

There are no compliance determination requirements for the welding stations and combustion units because the emissions are negligible and there are no stacks associated with the affected units.

No compliance stack tests shall be required to demonstrate compliance with the welding station 326 IAC 6-3-2 PM limits because there are no stacks associated with the welding stations. Compliance has been demonstrated by converting the annual PM UPTE to an hourly value, comparing this value with the 326 IAC 6-3 hourly allowable rate, and demonstrating that the hourly UPTE is less than the allowable hourly rate.

No compliance stack tests shall be required to determine compliance with the PM overspray limits because compliance with this limit is determined by requiring observations and inspections of dry filter systems. However, even though no stack testing is required at this time, the Office of Air Quality has the authority to require compliance stack tests if deemed necessary.

No compliance stack tests shall be required to determine compliance with VOC content limits because compliance is determined by calculating the VOC content of each coating and the daily volume weighted average. However, even though no stack testing is required at this time, the Office of Air Quality has the authority to require compliance be demonstrated if deemed necessary.

Compliance Monitoring

Compliance monitoring for the source shall consist of recording the daily VOC content and daily volume weighted average values estimated, and inspecting and observing the dry filter systems and recording the results of said inspections and observations.

There are no compliance monitoring requirements for the welding stations and combustion units because the emissions are negligible and there are no stacks associated with the units.

Record Keeping

The record keeping requirements for the source shall include maintaining copies of the estimated VOC content and daily volume weighted averages, and maintaining copies of the inspection and observation logs associated with the dry filter systems.

Reporting

No reporting is required of this source because it is determined that presenting copies of the records upon request is sufficient to demonstrate compliance with the applicable limits and requirements of this permit.

Conclusion

This mobile electrical substation manufacturing and coating operation shall be operated pursuant to the requirements listed in MSOP No. 141-15092-00545.